

The Association of Recently-Diagnosed Diabetes and Long-Term Diabetes With Survival in Pancreatic Cancer Patients: A Pooled Analysis

SUPPLEMENTARY TABLES 1-5

SUPPLEMENTARY TABLE S1. Ascertainment of Diabetes Status and Duration in Pancreatic Ductal Adenocarcinoma Patients From Three Participating Studies in PanC4			
	MDACC	Ontario	MSKCC
Method of diabetes ascertainment	Self-reported diabetes	Self-reported diabetes and medical chart review (recently diagnosed diabetes <1 year)	Self-reported diabetes
Diabetes history question	Other than during pregnancy, have you ever been told by a doctor or health professional that you have diabetes or sugar diabetes?' (yes/no)	Before one year ago, has a doctor ever told you that you have sugar diabetes? (yes/no)	Have you ever been told that you have diabetes? (yes/no)
Diabetes onset question	How old were you when you were first told that you had diabetes or sugar diabetes Less than one year before cancer diagnosis (yes/no)	How old were you when you were first diagnosed?	How old were you when you were first diagnosed with diabetes?
Insulin question	Have you ever taken insulin? (yes/no)	Did you take insulin? (yes/no)	What kind of treatment or follow-up were recommended? (insulin by injection)
PanC4 indicates Pancreatic Cancer Case Control Consortium; MDACC, MD Anderson Cancer Center; Ontario, Ontario Pancreatic Cancer Study; MSKCC, Memorial Sloan Kettering Cancer Center.			

SUPPLEMENTARY TABLE S2. Demographic and Clinical Characteristics of Pancreatic Ductal Adenocarcinoma Patients by Diabetes Status by Three Participating Studies in PanC4

Variable	MDACC			Ontario			MSKCC		
	No Diabetes	Long-Standing Diabetes (>3 y Duration)	Recently Diagnosed Diabetes (≤3 y Duration)	No Diabetes	Long-Standing Diabetes (>3 y Duration)	Recently Diagnosed Diabetes (≤3 y Duration)	No Diabetes	Long-Standing Diabetes (>3 y Duration)	Recently Diagnosed Diabetes (≤3 y Duration)
Number of patients	933	120	190	592	99	99	549	81	133
Person-months	17875	1965	3343	14272	1866	2348	12889	1520	2880
Number of deaths	816	107	171	496	85	88	487	74	114
Median survival, mo	13.7	13.7	12.5	17.5	14.2*	17.9	17.0	15.0	17.0
Age, mean (SD), y	61.3 (10.3)	63.4 (8.6)*	63.7 (8.9) [†]	64.3 (11.0)	66.2 (8.6)	65.9 (9.6)	63.7 (11.2)	64.4 (10.1)	65.0 (10.5)
Sex, male, n (%)	532 (57)	80 (67)*	123 (65)*	285 (48)	56 (57)	62 (63)*	276 (50)	51 (63)*	68 (53)
Race, n (%)									
White (Ref)	877 (94)	106 (88)	172 (91)	540 (91)	82 (83)	86 (87)	496 (90)	68 (84)	111 (86)
Black	42 (4.5)	12 (10)*	17 (9)*	8 (1)	4 (4)	1 (1)	23 (4)	7 (9)	9 (7)
Other	14 (1.5)	2 (1.7)	1 (0.5)	44 (7)	13 (13)*	12 (12)	30 (5)	6 (7)	9 (7)
Stage of disease, n (%)									
Resectable (Ref)	270 (29)	28 (23)	57 (30)	386 (65)	57 (58)	55 (56)	225 (41)	29 (36)	52 (40)
Locally advanced	263 (28)	39 (33)	50 (26)	75 (13)	9 (9.1)	19 (19)	103 (19)	13 (16)	24 (19)
Metastatic	400 (43)	53 (44)	83 (44)	131 (22)	33 (33)*	25 (25)	221 (40)	39 (48)	53 (41)
Surgery for curative intent, n (%)	270 (29)	28 (23)	56 (29)	348 (59)	50 (51)	51 (52)	213 (39)	22 (27)*	47 (36)
Chemotherapy, n (%)	654 (70)	88 (73)	124 (65)	265 (45)	41 (41)	36 (36)	314 (57)	46 (57)	74 (57)
Smoking status, n (%)									
Never	406 (44)	51 (43)	73 (38)	250 (42)	45 (45)	39 (39)	259 (47)	32 (40)	66 (51)
Former	358 (38)	44 (37)	89 (47)	286 (48)	44 (44)	44 (44)	263 (48)	41 (51)	58 (45)
Current	169 (18)	25 (21)	28 (15)	56 (9.5)	10 (10)	16 (16)	27 (5)	8 (10)	5 (4)
BMI, mean (SD), kg/m ²	25.7 (5.0)	28.9 (6.4) [†]	26.9 (4.8)*	23.3 (4.0)	25.2 (4.8) [†]	23.1 (3.6)	24.3 (4.2)	26.5 (5.7)*	24.9 (4.7)

*Statistical significance $P < 0.05$

[†]Statistical significance $P < 0.001$

PanC4 indicates Pancreatic Cancer Case Control Consortium; MDACC, MD Anderson Cancer Center; MSKCC, Memorial Sloan Kettering Cancer Center; SD, standard deviation

SUPPLEMENTARY TABLE S3. Characteristics of Pancreatic Ductal Adenocarcinoma Patients With and Without Long-Standing Diabetes (>3 Years Duration) by sex in Three Participating Studies in PanC4

Variable	Female		Male	
	No Diabetes	Long-Standing Diabetes	No Diabetes	Long-Standing Diabetes
Number of patients	981	113	1093	187
Age, mean (SD), y	63.1 (11.1)	65.1 (8.8)*	62.5 (10.7)	64.3 (9.2)*
Race, n (%)				
White	893 (91)	92 (82) [†]	1020 (93)	164 (88)*
Black	42 (4)	14 (12)	31 (3)	9 (5)
Other	46 (5)	7 (6)	42 (4)	14 (7)
Stage of disease, n (%)				
Resectable	440 (45)	47 (42)	441 (40)	67 (36)
Locally advanced	197 (20)	16 (14)	244 (22)	45 (24)
Metastatic	344 (35)	50 (44)	408 (37)	75 (40)
Surgery for curative intent, n (%)	412 (42)	45 (40)	419 (38)	55 (29)*
Chemotherapy, n (%)	575 (59)	66 (58)	658 (60)	109 (58)
Smoking status, n (%)				
Never	489 (50)	64 (57)	426 (39)	64 (34)
Former	367 (37)	30 (27)	540 (49)	99 (53)
Current	125 (13)	19 (17)	127 (12)	24 (13)
BMI, mean (SD), kg/m ²	23.8 (4.8)	27.3 (6.6) [†]	25.4 (4.3)	26.9 (5.5) [†]
* Statistical significance $P < 0.05$				
[†] Statistical significance $P < 0.001$				
SD indicates Standard deviation; PanC4, Pancreatic Cancer Case-Control Consortium				

SUPPLEMENTARY TABLE S4. Characteristics of Pancreatic Ductal Adenocarcinoma Patients With and Without Long-Standing Diabetes (>3 Years Duration) by Stage of Cancer in Three Participating Studies in PanC4

Variable	Resectable		Locally Advanced		Metastatic	
	No Diabetes	Long-Standing Diabetes	No Diabetes	Long-Standing Diabetes	No Diabetes	Long-Standing Diabetes
Number of patients	881	114	441	61	752	125
Age, mean (SD), y	63.8 (11.0)	66.2 (8.4)*	62.1 (10.6)	63.1 (9.4)	62.0 (10.8)	63.8 (9.3)
Sex, male, n (%)	441 (50)	67 (59)	244 (55)	45 (74)	408 (54)	75 (60)
Race, n (%)						
White	813 (92)	101 (89)	410 (93)	50 (82)*	690 (92)	105 (84)*
Black	20 (2)	6 (5)	17 (4)	5 (5)	36 (5)	12 (10)
Other	48 (5)	7 (6)	14 (3)	6 (10)	26 (3)	8 (6)
Surgery for curative intent, n (%)	796 (90)	98 (85)	23 (5)	2 (3)	12 (2)	1 (1%)
Chemotherapy, n (%)	575 (65)	76 (67)	245 (56)	41 (67)	413 (55)	58(46)
Smoking status, n (%)						
Never	374 (42)	40 (35)	202 (46)	28 (46)	339 (45)	60 (48)
Former	424 (48)	61 (54)	181 (41)	22 (36)	302 (40)	46 (37)
Current	83 (9)	13 (11)	48 (13)	11 (18)	111 (15)	19 (15)
BMI, mean (SD), kg/m ²	24.2 (4.4)	26.3 (5.9) [†]	25.0 (4.7)	27.8 (4.9)*	25.0 (4.9)	27.8 (6.3) [†]

* Statistical significance $P < 0.05$

[†]Statistical significance $P < 0.001$

SD indicates Standard deviation; PanC4, Pancreatic Cancer Case-Control Consortium

SUPPLEMENTARY TABLE S5. Characteristics of Pancreatic Ductal Adenocarcinoma Patients With and Without Long-Standing Diabetes (>3 Years Duration) by BMI Categories in Three Participating Studies in PanC4

Variable	BMI ≥ 25 kg/m ²		BMI <25 kg/m ²	
	No Diabetes	Long-Standing Diabetes	No Diabetes	Long-Standing Diabetes
Number of patients	898	178	1176	122
Age, mean (SD), y	61.8 (10.4)	64.0 (8.8)*	63.6 (11.1)	65.5 (9.4)*
Sex, male, n (%)	558 (62)	113 (63)	535 (45)	74 (61%)*
Race, n (%)				
White	843 (94)	159 (89)	1070 (91)	97 (80)†
Black	35 (4)	12 (7)	38 (3)	11 (9)
Other	20 (2)	7 (4)	68 (6)	14 (11)
Stage of disease, n (%)				
Resectable	333 (37)	69 (39)	548 (47)	45 (37)
Locally advanced	202 (22)	33 (19)	239 (20)	28 (23)
Metastatic	363 (40)	76 (43)	389 (33)	49 (40)
Surgery for curative intent, n (%)	307 (34)	61 (34)	524 (45)	39 (32)
Chemotherapy, n (%)	570 (63)	106 (60)	663 (56)	69 (57)
Smoking status, n (%)				
Never	399 (44)	76 (43)	516 (44)	52 (43)
Former	395 (44)	76 (43)	512 (44)	53 (43)
Current	104 (12)	26 (15)	148 (13)	17 (14)
BMI, mean (SD), kg/m ²	28.7 (3.8)	30.6 (5.1)†	21.6 (2.3)	21.9 (3.8)

* Statistical significance $P < 0.05$

†Statistical significance $P < 0.001$

SD indicates Standard deviation; PanC4, Pancreatic Cancer Case-Control Consortium